The 50 MHz DX Bulletin

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The 50 MHz DX Bulletin was founded by Harry Schools KA3B. It is dedicated to the understanding and utilization of long distance propagation in the 6-meter Amateur band. The current editor and publisher is Victor Frank, K6FV. Subscription rates are $20 U.S. third class mail, $25 U.S./Canada/Mexico airmail, $25 by surface or $30 airmail elsewhere for 12 issues. Circulation matters and DX reports should be sent to 12450 Skyline Blvd., Woodside, CA 94062-4541 USA. If you can reach the Internet, my address there is frank@marie.sri.com or frank@crvax,sri.com; if you cannot, and have packet, try K6FV@N0ARY.#NOCAL.CA.USA.NA. The Bulletin may be freely quoted, provided that credit is given.

Six Meter F2 DX Report

from Kerry Mundell, ZL2TPY, 02/02/94

With the total disappointment of F2 DX in our main DX window of March & April 1993, many started printing that the F2 for cycle 22 had finished & VK/ZL wouldn't work into the USA again until the year 2000. Well, I didn't take any notice of the so-called specialists, but I changed my method of looking for 6 meter DX.

In the past solar cycles, openings of the type I observed (in January 1994) would have gone by unnoticed, as in the last nine months I have observed no in-band beacons on F2 (only on TEP and Sporadic-E) except for FO5DR once. If I had sat on 50.110 MHz, I still would have heard nothing on F2.

The only way to catch F2 DX is to look below 6 meters and observe the rising MUF each day by high-speed scanning and watching the trend building month by month with each solar rotation, so you can then pay a closer look to the F2 paths at the right time.

At one time in October 1993, looking at the sun through my 150mm telescope, I observed no sunspots at all. Then, suddenly, in November, I saw a large sunspot group (of the size that we used to see in 1989/90). That was my first clue to look for the elusive F2 DX. The MUFs to the USA rose very sharply to 43 MHz on November 6 as a result. The next change was a rise to 36 MHz on the gray line time of 2030Z on November 16. Then on December 3, the MUF rose to 43.2 MHz during a late time slot of 0120 to 0306Z. That's a long and very late time slot to ZL. Then on December 7, I observed 48/49 MHz USA RTs, so six may have been open to the USA, but I don't think any operators were looking down into the Pacific, so it went by with no QSOs.

By January 3, 1994, the gray line MUF into the USA had changed from 36 MHz to over 43 MHz. Looking at the sun in early January, I observed a very promising set of three clusters of sunspots spread over the three zones of the sun. This gave me a clue to look very closely at 6 meters. By January 5, I observed 47/49.5 MHz from the USA and Mexico at the normal DX window time of 0000Z. Still observing on January 6, more 47/49 MHz RTS and telephone CCTS, but still no response to my CQs on 50.110.

Then on January 12, the gray line MUF rose to 50.05 MHz to the FO5DR beacon at 2024Z. (This is not the USA, but it is one F2 hop short & normally shows up a few days before USA F2 in the last few years.) So, that set the stage for the rest of the day--with change of UTC date to January 13, the MUF rose again to 43 MHz @ 0024Z, then 49.52 MHz @ 0038Z with RTs from W5, then 47.84 MHz RTs @ 0040Z.

I called twice with long directional CQs on 50.110 MHz, trying to stir up a Yank. Then to my delight came back a very happy N7JJS/5 in EM32 with 55 reports @ 0047Z. (Note this time is starting to get late for normal F2 DX in ZL).

Then @0115, I worked WD5EWD in EM22, then WD5K in EM12, then N5QJH in EM13. By 0123, W5EU in EM12 was 59. Last QSO was @0132 to WB5LUA, after which I lost F2 propagation @0140Z (which is getting real late for F2). Note that after alerting others, ZL2KT worked W5EU as did ZL1THQ.

The special thing about this opening is that it appears to be a F2 one linked into one Sporadic-E hop into W5 land to the one small area of North/East Texas. No beacons were heard, neither FO5DR nor the normal XE beacons.

Tom, WD5K, wrote and informed me that he was sitting in what I suspect was a two hop Sporadic E opening from W3, W2, W4 & W8 into XE1J on the west coast of Mexico in DK89 where he could hear both sides of the large opening taking place (which normally indicates an intense Sporadic E opening at his QTH. The times tie in good with Tom, WD5K's, start of opening @2300Z. Then he observed the XE1UZL/B @ 0050Z. Then he worked into ZL then after he had an opening into W6 land until the band closed at about 0200Z. (It closed into ZL only twenty minutes before).

So that is a six meter opening hard worked for, with many, many hours spent looking for it. Oh what fun, even if it was just for a handful of QSOs.

Then on January 14, the band opened to XE, but I had to go to a wedding, so no QSOs. After being alerted to the XE path, Ray, ZL2KT, had a very weak QSO on CW with XE1J at about 0005Z on January 15.

So looking at my graphs, six meters may have been open on F2 to the USA and Mexico a total of six times over December 1993 and January 1994. Remember, the solar flux was only a lowly 98/18A/3K, so it shows how much we don't really understand about VHF propagation.

48/49 MHz TV Video Carrier Frequencies

by Bob Cooper, Jr., ZL4AAA
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Background:

50 MHz (six meter) enthusiasts worldwide utilize the 48.(25 nominal) and 49.(75 nominal) TV video carriers (European channel E2, Russian channel R1) as propagation indicators. TV station operators, by their own choice or by national licensing authority instruction, operate on specified frequencies which are seldom precisely 48.250(.0) or 49.750(.0). In an attempt to locate as many TV transmitters as possible within a given region, licensing authorities routinely specify 'precise offsets' for the transmitter operating frequencies. This reduces or eliminates 'co-channel' on-screen (video) interference between two (or more) transmitters operating in the same channel (such as E2). The worst possible scenario for fringe area TV viewing is for two or more stations to arrive at the same receiving location

'more or less' on the same frequency. The frequency difference between the two carriers produces a 'beat', just as two amplitude modulated signals on AM or shortwave 'beat' and form a heterodyne you can hear. In the case of video, the two beating carriers produce a low frequency beat of a few Hertz to a few kilohertz, resulting in 'co-channel interference lines' in the video on the screen.

Experiments in the 40's and 50's revealed that if TV transmitter frequencies are offset by 10 or 20 kilohertz, rather than by some random amount, the 'video beat' or lines on the TV screen are less objectionable to the viewer. This is called 'offset' operation; the TV transmitter carrier frequency is offset from the nominal video frequency; i.e., 48.250 or 49.750, by either + 10 kHz or -10 kHz. These are commonly referred to as 'plus' and 'minus' offsets.

Offset assignments are known and occasionally published. Two well regarded lists are published in Europe (1) and North America (2) for TV DXing enthusiasts. Of these two lists, the North American lists taken from Federal Communications Commission and (Canadian) Department of Transport records are most reliable. European/West Asian lists must come from numerous federal licensing agencies because of the number of countries involved; their accuracy is less dependable.

A television station is **assigned** an offset frequency; either 'minus,' 'plus,', or 'even' (which is no offset at all.) It is up to the station to maintain its own transmitter operating frequency within the window allowed by its regulatory agency rules. Worldwide, stations typically strive to maintain frequency stability (long and short term) of ± 1.0 kHz. Some stations do much better than this, typically ± 0.1 kHz.

If you utilize these station signals as 50 MHz 'DX opportunity' propagation indicators, and if you know their (a) assigned frequency, plus, (b) their operating frequency stability, and, (c) their **actual** 'typical' operating frequency, then with suitable receiving equipment you can turn a logging from the zero-beat frequency readout on your receiver to a 'probable transmitter source' in your records. This assumes only that you have some method to verify the accuracy of your own receiver's frequency readout in the zero-beat mode. (It is worth noting that if you have a TV transmitter near you which you can read out on your receiver, its own **known** operating frequency becomes a secondary frequency standard against which you can calibrate your own receiver.)

Method:

While operating six meters from the Azores June 05-27, 1991, tens of hours were spent monitoring and decoding TV transmissions received via Es. Signals were displayed on an Icom 575H receiver (readout to nearest 100 Hz), compared with a known standard, and checked using TV DXing techniques for program content/programming sources. Fourteen of the 48.25 MHz (nominal) transmitters and nineteen of the 49.75 MHz (nominal) transmitters within 'Europe' were received via Es multiple times to allow not only spot measurement of their operating frequency, but a recording of the change in operating frequency over the 22 hour day period. The data which follows (on the next page) analyzes these observations and measurements.

References

1. **44-108 MHz TV Stations Worldwide**, % Gunther Lorenz, Mittlerer Graben 35-75, D-8050 Freising, Germany (also available at HS Publications, 7 Epping Close, Derby DE3 4HR, ENGLAND @ £8.85 postage paid to USA; £6.70 postage paid in UK.

2. Worldwide TV-FM DX Association, P.O. Box 514, Buffalo, N.Y. 14025. Request TV station offset directory.

48.25 MHz: European Channel E2.

Excluding African, Middle-East Asian, and Far-East Asian stations, there are 17 known stations on channel E2. Fourteen of these transmitters were received often enough and for long enough to create the listing on the following page, footnotes for which follow:

a) Transmitter closes down around 0030 UTC, re-opens around 0730 most days.
b) Transmitter appears to be 24 hours random days; note Spain 48.250.1 is TVE-1 network, 48.251.9 is TVE-2 network; programming and hours not identical.

49.75 MHz: Russian Channel R1.

Although Russian assignments on R1 are published for the entire 11 time-zone-wide country, arbitrarily only those assignments west of 40° E. are included here; a function of drawing a line out 3,300 miles from the Azores observation point and making the assumption most reception via Es (EE or even EEE) would be within this zone. Some Russian R1 transmitters have published offsets; most do not. This may be due to their offsets being unknown, or, because they are not offset from 'even'; i.e., 49.750. A few former 'satellite countries' (Hungary, et. al.) also use R1; plus a single Austrian transmitter. Virtually all Russian stations on R1 are network-affiliated with Central Television (One/CT-1), the primary 'first channel.' Most transmitters operate as satellite relays, without local announcements or identification. This complicates **positive** identification in the TV DX sense where you 'count' a station **only** after obtaining verifiable program content information. If several dozen transmitters all on the same 'channel' carry the same program at the same time—well, you can see the magnitude of the challenge. **Positive** identification is at best 'iffy.'

Having said that, repeated loggings of individual transmitters, grouped together with other transmitters between 25 and 100 MHz from the same 'region,' makes it possible to pin-point specific transmitter frequencies to specific transmitter sites with perhaps a 90% accuracy. That is a caveat; this information is the best available, skillfully collected, but is not infallible. Additions and corrections will be gratefully accepted. Listing on following page, footnotes for R1 follow:

c) Czechoslovakia national network (known as CTS-1); programming not same as CT-1.
d) Hungarian national network (known as MTV), programming not same as CT-1.
e) Hungarian network; see c).
f) Polish national network (known as TP-1); transmitter schedules to be shut down in favor of new UHF channel, but still operational June 1991.
g) Station fed from Leningrad with programming that parallels CT-1 only part of the day; balance originates from Leningrad regional studio.
h) Station originates Latvian TV, which given the current political turmoil probably does not include any CT-1 programming. See k) here.
i) Officially, ORF is not operating on channel R1, but rather E2A. R1 transmitters have their audio +6.5 MHz; i.e., nominally 56.25; ORF on E2A has audio at 55.25 MHz (+5.5 MHz).
j) Leningrad produces some of its own programming for feed to other nearby stations, integrating same with Moscow-originated CT-1 programs. Therefore program content at any instant may vary from CT-1 feeds on other satellite-fed transmitters.
k) Station is less than 100 miles from Latvian transmitter on same channel, noted in h) above. Latvian TV was not positively logged; it may be on the air only as a purposeful 'jammer' to this official CT-1 outlet in Latvia. This CT-1 transmitter has a distinctive 'dirty' sound in CW/SSB mode zero beat, characteristic of poor power supply filtering (accidental or on purpose since poor filtering increases

European and Russian 48/49 MHz TV Transmitter Frequencies

Frequency MHz	Country	Coordin. Lat Long	Power (kW)	Grid Square	Frequency Variation	Location
48.237	Belgium	51N 04E	0.1	JO21	NOT LOGGED	Antwerpen
48.239.4	Sweden	59N 15E	60	JO79	? 0.1 kHz	Ore Orebro
48.239.7	Germany	49N 07E	100	JN39	+.1,-.2 kHz	Saagottelborner
48.241.1	Portugal	42N 08W	40	IN51	+.2,-.1 kHz	Muro (a)
48.246.1	Norway	61N 05E	30	JP21	+1.,-.1 kHz	Gulen
48.247.3	Germany	51N 08E	100	JO41	+.2,-.1 kHz	Hes Biedenkopf
48.249.2	Norway	70N 30E	30	KQ50	+.3,-.5 kHz	Varanger
48.250	Germany	51N 11E	0.1	JO51	NOT LOGGED	Weimar-Nohra
48.250	Yugoslavia	Unknown	Unknown	Unknown	NOT LOGGED	Poppeca
48.250.0	Sweden	64N 20E	60	KP04	? 0.1 kHz	Vannas
48.250.1	Switzerland	47N 07E	48	JN36	+.0,-.3 kHz	Bantiger
48.250.2	Spain	41N 04W	250	IN80	+.0,-.2 kHz	Madrid (b)
48.251.9	Spain	43N 08W	40	IN52	+.2,-.0 kHz	San.de Compost. (c)
48.253.3	Norway	58N 08E	60	JO48	+.1,-.7 kHz	Griepstad
48.255	Sweden	63N 17E	0.15	JP83	NOT LOGGED	Jambispfors
48.257.0	Norway	63N 10E	100	JP53	+.0,-.9 kHz	Melhus
48.260.5	Germany	47N 10E	100	JN57	+.1,-.0 kHz	Bay Grunthen
49.739.7	Czechoslav.	50N 14E	150	JO70	+.0,-.1 kHz	Prague (c)
49.739.7	Ukraine	53N 33E	35	KO62	+.0,-.0 kHz	Voronez
49.737.9	USSR	59N 38E	35	KO88	+.0,-.1 kHz	Cherepovets
49.740	USSR	50N 24E	150	KO20	NOT LOGGED	Lvov
49.740	USSR	45N 34E	50	KN65	NOT LOGGED	Simferopol
49.740.1	Hungary	47N 19E	150	JN97	+.1,-.1 kHz	Budapest (d)
49.741.0	USSR	68N 35E	10	KP78	+.0,-.0 kHz	Lovozero
49.744.2	Hungary	46N 17E	50	JN86	+.3,-.2 kHz	Nagykanisza (e)
49.747.5	USSR	56N 38E	300	KO85	+.1,-.1 kHz	Moscow
49.748.8	Poland	53N 18E	120	JO83	+.0,-.1 kHz	Bydgoszcz (f)
49.750	USSR	45N 39E	50	KN95	NOT LOGGED	Krasnodar
49.750	USSR	44N 40E	35	LN04	NOT LOGGED	Soci
49.750	USSR	61N 29E	25	KP41	NOT LOGGED	Kamennogorsk
49.750	USSR	58N 40E	10	LO08	NOT LOGGED	Kostroma (g)
49.750	Latvia	57N 25E	10	KO27	NOT LOGGED	Stucka (h)
49.750	Ukraine	50N 31E	1	KO50	NOT LOGGED	Kijiv
49.750	Lithuania	54N 21E	0.1	KO24	NOT LOGGED	Druskinankai
49.750.1	USSR	54N 27E	150	KO33	+.0,-.2 kHz	Minsk
49.750.1	USSR	65N 34E	10	KP75	+.0,-.0 kHz	Kuzema
49.750.1	Austria	48N 15E	60	JN78	+.1,-.0 kHz	Jauerung (i)
49.750.2	Ukraine	48N 33E	35	KN68	+.0,-.0 kHz	Krivoi Rog
49.750.4	Czechoslav.	48N 18E	0.15	JN98	+.0,-.2 kHz	Sturovo
49.750.7	USSR	60N 30E	240	KO59	+.0,-.0 kHz	Leningrad (j)
49.759.9	USSR	56N 30E	90	KO56	+.1,-.1 kHz	Velikije
49.758	USSR	63N 32E	10	KP63	NOT LOGGED	Sukkozero
49.759.9	Ukraine	51N 29E	50	KO41	+.0,-.0 kHz	Ovrutch
49.760	USSR	52N 39E	35	KO92	NOT LOGGED	Ungtcha
49.760.5	Latvia	57N 22E	50	KO17	+.0,-.3 kHz	Kuldiga (k)
49.760.6	Czechoslav.	50N 18E	100	JN99	+.0,-.2 kHz	Ostrava (l)
49.760.8	USSR	47N 40E	35	KN97	+.1,-.1 kHz	Roston-na-Donu

interference potential to other stations on the same channel.)
l) Czechoslovakia national network, see c) here.

Unlisted

The following signals were logged, but are not shown on published lists. They may be from east of 40° E., or simply new transmitters not known to list publishers.
49.738.5 Possibly between Leningrad and Ukraine; varies +.0,-.0
49.749.3 Dirty video carrier, power power supply filtering; ????
49.755.2 Possibly between Murmansk and Leningrad; +.1,-.0 kHz

Postscript

This has not been updated since June 25, 1991. With privatising of most Russian and former satellite country TV networks, the notes concerning program content would now be suspect. It is unlikely the transmitter frequency, stability, and modulation quality data has changed much (except perhaps for the worse!).

Note that Moscow is 300 kW ERP, **not** 1 MW as noted on page 3 in December's bulletin. Moscow, you will note, is the **only** TV transmitter within 1 kHz window, and is very distinctive, having been heard here numerous times (sadly, none recently!). Into the Azores, it was an incredibly strong EEE signal for hours on end with really first class pictures.

Re: Evaluation of 50 MHz Transceivers

The day before we were to go to press, I received a letter from Sam Goda complaining (among other things) about my adding the word "Proposed" to the title of the article of his which we published last month. In his latest letter, he directed that if his 1/2/94 Evaluation 50 MHz Transceivers were to be published in this issue that I should not change it all. In particular, he said "the very close typing must be reproduced exactly." And, so you will find it on the following page. As a result of this and other mishaps, the bulletin is late and will not be available for me to stuff this coming weekend. My patience is running thin.

EVALUATION 50 MHZ TRANSCEIVERS

Revised 1/2/94

Manufacturer	ICOM	ICOM	KENWOOD	KENWOOD	YAESU	YAESU
Model	IC-575H	IC-729	TS-690S	TS-680S	FT-650	FT-736R
QST Product Review	11/1988	2/1993	4/1992	10/1988	10/1991	5/1990
Frequency:						
Receiver	26-56 mHz	0.03-33	0.5-30	0.5-30	24.5-56	144/220/430/1200
		46.2-61.1	50-54	45-60		50-54
Transmitter	28-29.7 mHz	HF ham	HF ham	HF ham	24.5-25,28-29.7	144/430
	50-54 mHz	50-54	50-54	50-54	50-54	50-54
Resolution	100 Hz		10	100	10/100	10/100
Memory	99	26	100	31	105	99
Power Supply	13.8Vdc/20A	13.8/20	13.8/20.5	13.8/20	120 Vac	120
Transmitter(50 mHz):						
Output SSB/CW	100 W	10	50	10	100	10
Spurious	-60 db	-60	-60	-60	-60	-60
3rd Order IMD	-32 db	-42	-32	-29(fair)	-27(poor)	-27(poor)
5th Order IMD	-42 db	-39	-38(fair)	-44	-40	-40
SSB Waveform	very good	fair	fair	fair	poor	poor
CW Waveform	very good	poor	poor	poor	fair	poor
Phase Noise[1]	-90/-110 dbc/Hz	na	na	-90/-110	na	na
XIT	no	no	±2.2 kHz(good)	no	no	no
VOX	PTT	PTT	off/on SW	access.	PTT	control
T/R Transition	3 msec(vy good)	17	24	25	28	46(slow)
PA Relay Conn.	transistor SW		relay	relay	transistor SW	transistor SW
Receiver(50 mHz):						
Selectivity(6/60 db)	2.3/4.0 kHz	2.3/4.0	2.2/4.4	2.2/4.4	2.2/4.4	2.2/4.5
CW Filter	500/250 Hz	500/250	500/250	500/250	600	600
MDS(preamp off/on)	-132/-137 dbm	-137/-141	-140	-137/-141	-133/-139	-140
Blocking Dynamic	127/126 db	112/111	109(fair)	106/102(fair)	109/104(fair)	119
Two-Tone 3rd IMD	89/87 db	88/85	82(poor)	88/87	86/82(poor)	82(poor)
3rd Order Intercept	1.5/-6.5 db	-5.0/-13.5(poor)	-24.5(vy poor)	-4.75/-10.3(fair)	-4.0/-16(poor)	-17(poor)
S-Meter Sen. @ S9	4.1 uv	4.2	4.8	7.3(poor)	2.8(good)	4.4
Attenuator	no	-20 db	-20	-20	-10	no
Preamp	10 db	10	AIP[2]	10	10	SW for preamp
IF Shift	no	PBT	yes. CW reverse	yes	yes	yes
RIT	±9.99 kHz	±1.2	±2.2	±2.5	±9.99	±9.99
Noise Blanker	SW very poor	SW poor	NB1, NB2 poor	NB1, NB2,level poor	SW poor	SW poor
List Price	$1699.00	1419.00	1549.95	discontinued	1599.00	1922.00
CW Filter(500 Hz)	81.00	81.00	149.95 & 98.95		159.00	159.00
Hi-Stability TCXO	83.00	83.00	149.95		no	no. 249.00(6M Unit)
Mic	50.25	50.25	83.95		115.00	115.00
Power Supply	239.00	239.00	229.95		120 Vac	120 Vac
Recommended Scale	3	1	1-Ø	2	1-Ø	Ø(rejected)

In all transceivers: VFO A/B, A = B, Split; Mode USB, LSB, CW, FM, AM; Notch; MDS = minimum discernible signal where audio signal = noise, the noise floor; and all used the very poor type UHF, SO-239 RF connector(should be type N, UG-22B/U). Grading: superior, excellent, very good, good, fair, poor, very poor, & rejected. Recommended Scale of Ø to 10 (top ideal) for serious 6M DXing; and for average 6M operation respectively 4, 2, 2, 3, 2, 2.

In evaluation of current 50 mHz transceivers, most important transmitter & receiver parameters were compared; so-called bells & whistles were considered as secondary importance; and all this coupled to the price. It will be assumed that the reader had studied manufacturer brochures and QST Product Reviews. As stated in the HF paper[2], all YAESU products are not acceptable because of the "YAESU sound" being continued from the first HF tube set to the current HF flagship FT-1000D, including all 6M sets. In YAESU 6M transceivers, the receiver overloads easily; the USB signal distorts, hard to tune-in, wide sidebands; and the CW does not sound clean. These are important considerations in 6M work where strong local & single-hop F_2 signals(using YAESUs) can splatter into the desired double-hop F_2 SØ-3 signal 4-15 kHz away. This had happened many times during solar cycles 21 & 22 and in summer sporadic E openings. Although the TS-690S has some good features, basic T & R performance are poor, especially the receiever 3rd Order Intercept = -24.5 db. Therefore, the Scale = 1-Ø, not recommended for serious 6M work. In current 6M transceivers, the IC-575H has the best performance and the worst Noise Blanker. In trying to take one step forward over the discontinued TS-680S, KENWOOD had taken three steps backward in the TS-690S. In YAESU's[3] attempt had resulted in two backward in the FT-650, Scale = 1-Ø(YAESU sound); and ICOM's attempt in the IC-729 had resulted in two backward. I strongly feel that we do not need "just another 50 mHz box". Based on current marketing, designs, production, and applications, the another-box syndrome will continue.

In all past & current 6M transceivers, the use of an additional preamp is not recommended. In these sets, designs are marginal;[4] and the 10 db preamp will overload the RF, mixers, IFs, S-Meter, AGC, and/or noise blanker circuits. Having improved the IC-575H for serious 6M work, improved TR-6, 75S-3B, 75A-4(best 28 mHz IF receiver), I know that most 6M transceivers can be improved. However, these improvements should have been done at their respective laboratories before ever reaching production lines. Since 50 mHz is the most challenging amateur band where the very best set is required (not the reverse!), only the IC-575H had been accepted; and only the TEN-TEC Omni-VI[2] had been accepted as possible 28 mHz IF exciter/receiver. As of 8/1993, four manufacturers have expressed no interest in developing an high-performance 6-160M transceiver & not even an h-p 10-160M transceiver; therefore, mediocre-to-poor 6M and HF sets will be produced for many years. As customers, amateurs are at fault for knowingly/unknowingly buying these 6M & HF sets. Please write directly to chief engineers of manufacturers, and then in several years we might see an h-p 6-160M transceiver.

1. Phase Noise at offset = 2/20 kHz. Note that 6M Phase Noise are 10 db worst than HF transceivers.
2. AIP & Omni-VI, see EVALUATION HF TRANSCEIVERS, 1/2/94.
3. In the older FT-726R/6M, the Scale = Ø(rejected).
4. All improved information are not available.

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714/637-3989

6m, making it much harder to work VK8. Tnx VK3OT.

Australia, Norfolk Is. (VK9):

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01180428 VK9NS                50.110   JH0HQP
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Fiji: ZL4AAA writes that 3D2PO was worked using HF vertical antenna ground mounted and has never replaced 6m antenna from last year's hurricane. He reports that they still monitor 146.000 MHz on 2m FM in Fiji. He also confirms that 146.100 is a Fiji broadcaster STL running 25W to a 3 el antenna pointed SW. 146.100 is on the air from around 6AM local to 2400. 3D2PO will have 7 el horizontal fixed on ZL, and with multimode rig is ready to watch for Es and will switch to 144.100 USB when conditions dictate.

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01040440 3D2  Es MUF to 104 MHz     F ZL4AAA
01082310 3D2PO                        ZL4AAA
01100657 3D2PO                        ZL4AAA
01150525 3D2 Es TO 98 MHz           F ZL4AAA
01160255 3D2 FM BC to 104 MHz         ZL4AAA
01160411 3D2ER                        ZL4AAA
01160610 3D2 Es MUF to 99 MHz       F ZL4AAA
01162055 3D2 FM BC to 104 MHz+      F ZL4AAA
01162110 3D2 NBFM 87 MHz rptrs      F ZL4AAA Es
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Bob noted two-way rptrs @ 87.22, 87.25, 87.75, & 87.975 MHz.

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01170637 3D2 FM BC to 104 MHz(-0650) ZL4AAA
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French Oceania:

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01142159 FO5DR/B (2564 mi)(-2248)   B ZL4AAA
01142358 FO5DR/B  (-0016)           B ZL4AAA
01160601 FO5DR/B                    B ZL4AAA EE
01162053 FO5DR/B       (-2151+)     B ZL4AAA
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Papua/New Guinea:

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01070655 P29BPL/B  (-0731)          B ZL4AAA EE
01070714 P29CW wkg VK/ZL (-0850)      ZL4AAA
01082257 P29BPL/B 579 (-2355)         ZL4AAA EE
01100654 P29BPL/B 599  (-0810)      B ZL4AAA
01100723 P29BPL/B                   B FK1UH
01100738 P29KFS (Boroko,NCD)50.110 S ZL4AAA
01190732 P29BPL/B key closed (-0900) ZL4AAA
02051230 P29CW     (-1300)            JA
```

New Caledonia:

```
01040045 FK8  Es MUF 89MHz (-0050) F ZL4AAA
01040130 FK8DH wkg VK/ZL              ZL4AAA
01070612 FK8GA                        ZL4AAA
01072355 FK8GA, FK8GM  (-080010)      ZL4AAA
01090910 FK1UL  wkg a ZL1             ZL4AAA
01100723 FK1UH                        ZL4AAA
01150038 FK1UH                        ZL4AAA
01150445 FK8EB/m                      ZL4AAA
01150610 FK8                          ZL4AAA
01160220 FK8s              144 MHz    ZL1IU
01160333+FK8s                         ZL4AAA
01162016 FK8GA                        ZL4AAA
01170001 FK8s                         ZL4AAA
01170112 FK8 FM BC in&out (-0427)   F ZL4AAA
01170742 FKs                          ZL4AAA
01180241 FK8GA                        ZL4AAA
01190746 FK8DH                        ZL4AAA
01252110 FK8s                         ZL4AAA
```

New Zealand (ZL1 & 2):

```
01030252 ZL2TPY             50.110   JA1VOK
01040601 ZL2AGI             50.100   JH0HQP
01040601 ZL2KT              50.100   JH0HQP
01040602 ZL2UBG             50.100   JH0HQP
01040603 ZL1BHV, ZL1AVZ     50.100   JH0HQP
01040608 ZL2TPY             50.100   JH0HQP
01040610 ZL2TPY             50.147   JA5CMO
01080849 ZL2AAA Es BS (beaming VK2)  ZL4AAA
01110237 ZL2AAA beaming VK2 50.110   ZL4AAA Es BS
01110730+ZL1TZA,ZL3NE/1        144   VK2ZXC Es
01110730+ZL2TVT,ZL2TAL         144   VK2ZXC Es
01130130 ZL1THQ                      WQ5S
01130131 ZL2KT                       WQ5S
01142242 ZL2 50MHz skip to 380 mi    ZL4AAA Es
01150305 ZL2KT    50.130 BY JA9BHZ & JH1WHS
01150343 ZL2TPY             50.147   JH1WHS
01180355 ZL2AGI             50.110   JH1WHS
01180402+ZL2,3                       ZL4AAA F2 BS
01180408 ZL1MQ              50.120   JH1WHS
01180438 ZL2AYO             50.110   JH1WHS
01180448 ZL2AGI             50.100   JH0HQP
01180453 ZL2TPY             50.110   JH0HQP
```

01180521-0800 Very short Es skip (350 mi on 50 MHz.) ZL4AAA wkd ZL2UJH, AGI, VAU, KT, AYO, WBA, IA, MQ, TLK. From 0634-0815, FM Band Es was heard as close as 580 mi at 99 MHz, but signals had short, choppy QSB. No signs of 2m signals from the south island. MUF was certainly high enough but distances were 'wrong.'

```
02070325 ZL2TPY    (-0340)           JA1
```

New Zealand (ZL3 & 4):

```
01040600 ZL4AAA             50.110   JH0HQP
01040620 ZL4AAA             50.180   JA5CMO
01061850 ZL3MHF/B  (-1950)         B ZL4AAA Es
01061948 ZL3s      (-2015)           ZL4AAA Es
01070934 ZL3TY  Es BS (beaming VK4)  ZL4AAA
01082224 ZL3MHF/B                    ZL4AAA Es
```

01100729 ZL4AAA reports hearing a digital voice signal peaking S5 on 50.010. In FM mode, it was at least 10 kHz wide.

```
01110730+ZL3TY                144    VK2ZXC Es
01110757 ZL4LV                       ZL4AAA Es
01110806 ZL3MHF/B                  B ZL4AAA Es
01130426 ZL3TY                       ZL4AAA Es
01130503 ZL3MHF/B & <600 mi ZL3    B ZL4AAA Es
01140851 ZL3MHF/B & ZL4s (-0925+)  B ZL4AAA Es
01142057 ZL3MHF/B  (-2243)         B ZL4AAA
01142214 ZL3TY                       ZL4AAA Es
01150011 ZL3MHF/B                  B ZL4AAA
01150259 ZL3NE              50.110 C JA9BHZ
01150312 ZL3NE              50.110 C JH1WHS
01150316 ZL3TY              50.110   JH1WHS
01150320 ZL4TBN             50.110   JH1WHS
01161014 ZL3MHF/B                  B ZL4AAA
01161930 ZL3MHF/B     (-2008)      B ZL4AAA
01170955 ZL3MHF/B  (-1102+)        B ZL4AAA
01180407 ZL4AAA             50.120   JH1WHS
01180521 ZL1,2,3 50 MHz skip 350 mi  ZL4AAA Es
```

wkd ZL3ADT, AAU, TIC, TY, TGI, TBW, NW, hd ZL3MHF/B 40/9

```
01180623 ZL4AAA             50.110   JH0HQP
01180820 ZL4TBN       (-0900)        ZL4AAA
01182159 ZL3MHF/B     (-2220)      B ZL4AAA
01182200 ZL4TBN       (-2357)        ZL4AAA
01272245+ZL3MHF/B                  B ZL4AAA
01280450 ZL3ADT             50.110   JH1WHS
01312236 ZL3MHF/B  (-2301+)        B ZL4AAA Es
```

Bob's summary for January 4-31, 1994:
50 MHz Es days: all **but** 05, 12, 20, 24, 30
50 MHz Countries: ZL, VK, P29, 3D2, FO5, VK9, JA
50 MHz F2 Days: 04, 07, 10, 18
>89 MHz Es days: all **but** 05, 08, 09, 19-22, 24, 26-31
144 MHz Es days: 04, 07, 11, 14, 16, 17, 23.

1993 SMIRK Contest Results

An estimated 400 stations participated in the June 1993 SMIRK contest, based on log entries, of which only a disappointing 13 were received by contest chairman Pat Rose, W5OZI. Overall winner was W5OZI with 15,036 points, followed by N5HHS with 11,780 and W3XO/5 with 6912, all three being in South Texas. First place winners for their geographical areas are:

K1DAT	MA	WB4WXE	NJ	KC4SUS	FL	W5OZI	TX
WB7OHF	AZ	N8AXA	OH	N0LL	KS	WD0BQM	NE
VE1SLM	NB	VE7XO	BC	ZR1AEZ	RSA		

Contest #9 will be June 18 0000 - June 19 2400 UTC.

Subscriptions

I am now collecting subscription payments for all those whose expiration date is June 1993 (9306) or earlier. Your subscription expiration date is after your call on the mailing label. By advancing the collections two months for each month of real time, I hope to get caught up by the end of 1994. I am also beating the bushes looking for new subscribers.

United States:

```
01130058 K9EIC      EN52                 W5VAS
01130127 N8XYR      EN75                 W5VAS
02180345 N5JHV  (-0400) SIDE SCATTER     K6QXY
```

News of Oceania

Australia, General:

```
01170445 VK 148 MHz pagers (-0447)       ZL4AAA
01170502 VK 148 MHz pagers (-0504)       ZL4AAA
01172330 VK Es MUF to 148+ briefly       ZL4AAA
01230720 VK pagers          148 MHz      ZL4AAA
01230318 VK pagers &0325    148 MHz      ZL4AAA
```

Australia, Capital Territory (VK1):

```
01151110 VK1VP                           ZL4AAA
```

Australia, New South Wales (VK2):

```
01040440 VK2  paging systems 148MHz      ZL4AAA Es
01040615 VK2ZXC              50.110      JH0HQP
01040620 VK2ZXC              50.120      JA5CMO
01040644 VK2GLS              50.140      JA3JTG
01050854 VK2  paging systems 148MHz      ZL4AAA TROP
01062350 VK2  Es MUF to 107.7        F   ZL4AAA
01062350 VK2,4      (-070440)            ZL4AAA
01070135 VK2  paging systems 148MHz      ZL4AAA Es
01071025 VK2  Es MUF to 89.3 MHz     F   ZL4AAA
01080938 VK2 MUF to 106.3 (-1101+)       ZL4AAA Es
01082234 VK2,3,4,6                       ZL4AAA
01090200 VK2GLS clg a WB0       50.110   ZL4AAA
01090844 VK2s                            ZL4AAA
01102331 VK2,5,7                         ZL4AAA
01102332 VK2,4 Es MUF to 107.7       F   ZL4AAA
01110028 VK2  120.630, 121.500       A   ZL4AAA Es
01110058 VK2 pagers S9      148 MHz      ZL4AAA Es
01110108 VK2BA          wkd on 144.1     ZL4AAA Es
01110114 VK2FLR         wkd on 144.1     ZL4AAA Es
01110730 VK2  144 MHz Es    by ZL3,2,    ZL4AAA
01110904 VK2ZXC                          ZL4AAA
01130805 VK2,4  FM BC (-0938)        F   ZL4AAA Es
01130925 VK2,4 FM & 148 pagers-1020+     ZL4AAA TROP
01140821 VK2s                            ZL4AAA
01142251 VK2,3,4,5 Es MUF > 88 MHz   F   ZL4AAA-1200+
01150155 VK2s 4 wkd (-0203) 144 MHz      ZL4AAA Es
01150912 VK2,3  (-1100+)                 ZL4AAA
01160840 VK2,VK4 FM BC in&out-1027   F   ZL4AAA
01162152+VK2s                            ZL4AAA
01162210 VK2,4 MUF>88MHz (-0536)     F   ZL4AAA
01170112 VK2,4 FM BC in&out (-0427)  F   ZL4AAA
01171037 VK2 FM BC 92.5 MHz (-1102)      ZL4AAA
01172210 VK2,3,4 FM BC 107.7(-0122)      ZL4AAA
01180413 VK2GLS              50.120      JH1WHS
01230120 VK2s                            ZL4AAA
01230844 VK2 Es MUF to 100.9 MHz     F   ZL4AAA
```

01290110-1200+ ZL4AAA writes: Tropo ducting to SE NSW coastal area; very defined path(s). Australian end started out near sea level, rose dramatically as opening matured to vicinity of 2,000m+ at Austalian end. Still going when I quit; gone next morning at sunup. 0802-1200: Spotty VK2s on 144 MHz; VK2AVQ (1275 mi at 1,100m in Blue Mtns W of Sidney.) best signal here.

Australia, Victoria (VK3):

```
01040540 VK3LK               50.100      JH0HQP
01040553 VK3AZY              50.110      JH1WHS
01040557 VK3OT               50.130      JH1WHS
01040601 VK3AMK              50.130      JH1WHS
01040606 VK3YZP              50.110      JH1WHS
01040610 VK3TKP              50.160      JH1WHS
01040615 VK3AZY              50.145      JA5CMO
01040619 VK3TKA              50.120      JA5CMO
01040622 VK3DET              50.174      JH1WHS
01040627 VK3BMV              50.164      JH1WHS
01110050 VK3SIX/B                    B   ZL4AAA
01180418 VK3OT               50.110      JH0HQP
01180435 VK3LK               50.110      JH1WHS
01230809 VK3OT                           ZL4AAA
```

Australia, Queensland (VK4):

```
01032030 VK4BRG/B      (-0132)       B   ZL4AAA EE
01032109 VK4RGG/B      (-2207)       B   ZL4AAA
01040045 VK4  Es MUF 107.7 in&out    F   ZL4AAA
01040541 VK4RGG/B                    B   ZL4AAA
01040546 VK4UTT              50.110      JH0HQP
01040640 VK4ZAR              50.130      JA5CMO
01050235 VK4JH               50.110      JA5CMO
01050300 VK4JH               50.110      JA3JTG
01062243 VK4RGG/B  (-070329)         B   ZL4AAA
01070758 VK4RGG/B  (-1040+)          B   ZL4AAA
01070846 VK4BRG/B  (-1040+)          B   ZL4AAA
01072230 VK4 FM/pagers (-080945)     F   ZL4AAA
```

Bob notes FM BC stations as far north as Mackay (1756mi) and Rockhampton (1546mi) plus 148 MHz+ pagers. Signals peaked around 0530Z; no radio amateurs.

```
01082341 VK4BRG/B 559 (-0039+)           ZL4AAA EE
01092350 VK4RGG/B  (-100141)         B   ZL4AAA
01102145 VK4RGG/B  (-110130)         B   ZL4AAA
01110554 VK4 FM & 148 MHz pagers         ZL4AAA TROP
01110925 VK4RGG/B     (-0933)        B   ZL4AAA
01122347 VK4  Es to 106.1            F   ZL4AAA
01130805 VK4RGG/B  (-1006+)          B   ZL4AAA
01140731 VK4RGG/B  (-1020+)          B   ZL4AAA
01141954 VK4RGG/B  (-150939)         B   ZL4AAA
01142252 VK4 148 MHz pagers              ZL4AAA
01142305 VK4s 12 wkd (-2339) 144 MHz     ZL4AAA Es
01142344 VK4BRG/B (1756 mi)(-150023)     ZL4AAA EE
01150609 VK4BRG/B  (-1000+)          B   ZL4AAA EE
01151345 VK4  148 MHz pagers             ZL4AAA TROP
01160526 VK4RGG/B  (-0709)               ZL4AAA
01161008 VK4RGG/B      (-1052+)     B   ZL4AAA
01161930 VK4RGG/B      (-170618)    B   ZL4AAA
01162237 VK4  148 MHz pagers (-2310)     ZL4AAA Es
```

Bob notes pagers were briefly 60/9, but mostly S3-5. No 144 MHz amateur signals.

```
01162238 VK4BRG/B  (-170210)         B   ZL4AAA EE
01172120 VK4RGG/B                    B   ZL4AAA
01180058 VK4BRG/B  (-0457+)          B   ZL4AAA
01180402 VK4ZAA              50.120      JH1WHS
01180417 VK4XD               50.110      JH0HQP
01180420 VK4KGP              50.110      JH0HQP
01180442 VK4ZX               50.130      JH1WHS
01180451 VK4WTN              50.100      JH0HQP
01182157 VK4RGG/B     (-2204)        B   ZL4AAA
01190746 VK4BRG/B, VK4RGG/B          B   FK8DH
01192323 VK4RGG/B                    B   ZL4AAA
01211933 VK4RGG/B    (-2011+)       B   ZL4AAA
01222350 VK4RGG/B    (-230120+)     B   ZL4AAA
01230123 VK4 MUF to 89.3 briefly     F   ZL4AAA
01230247 VK4 MUF to 107.3 in & out   F   ZL4AAA
01232124 VK4RGG/B  (-2322+)          B   ZL4AAA
01250521 VK4RGG/B  (-0743+)          B   ZL4AAA
01250640 VK4 Es MUF to 92.5 MHz      F   ZL4AAA
01262257 VK4RGG/B                    B   ZL4AAA
01280635 VK4RGG/B  (-0654)           B   ZL4AAA
01282254+VK4RGG/B                    B   ZL4AAA
01290019 VK4RGG/B  (-0102)           B   ZL4AAA
02010525 VK4YPM    (-0545)               JA
02020627 VK4AFL    (-0640)               JA
02050500 VK4RIK/B  (-0530)           B   P29CW
```

Australia, South (VK5):

```
01040545 VK5NC               50.100      JH0HQP
01040610 VK5NC               50.150      JH1WHS
01170001 VK5s                            ZL4AAA
01180307 VK5BC                           ZL4AAA
01180440 VK5BC               50.110      JH0HQP
```

Australia, West (VK6):

```
01110057 VK6AS             144 MHz       VK5     Es
01110057 VK6AS      (-0130)              ZL4AAA
```

Australia, Tasmania (VK7):

```
01040546 VK7ZMF              50.110      JH0HQP
01040557 VK7EA               50.110      JH0HQP
01040615 VK7ZIF              50.110      JA5CMO
01180421 VK7LZ, VK7NC        50.110      JH0HQP
01180427 VK7ZIF              50.140      JH0HQP
01180453 VK7LZ               50.105  C   JA9BHZ
```

Australia, North Territory (VK8): VK8ZLX is now QRT from Alice PG66 and is moving to Geraldton in WA, so only VK8KK in Alice Springs and two or three others in Darwin are now active on

England: Dave, G0DJA sent us a list of the 50 MHz DX he has heard and worked with his Icom IC-726 and 5 element Yagi at about 30 foot. He says that he especially enjoys working Aurora and summertime Es. He remarks that the aurora that occurred on February 6-8 was due to a Coronal Hole passing over the Southern Region of the Sun. Seemed to be totally unexpected. Charlie Newton (G2FKZ) the Region 1 Auroral Co-ordinator and RSGB Propagation Studies Committee Chairman, contacted various sources to confirm the disturbance which pushed the K index up to 7 in Northern Latitudes.

```
01031141 G4WOS,G0JHC                        OZ3ZW  MS
01031219 G4UPS,G8AYQ                        OZ3ZW  MS
01031245 G4VPD                              PB0ALN MS
01031313 G0JHC,G0DJA                        SM7AED MS
01031332 G3SEU                              OZ3ZW  MS
01031448 G4HBA, GA0JHC                      PB0ALN MS
01031456 G8GXP                              SM7AED MS
01031508 G3WOS                              SM7AED MS
01031523 G0JJL, G3KPT, G0DJA                OZ3ZW  MS
01031548 G4JCL                              SM7AED MS
01032236 G0AEV, G1LMZ, G3WOS                OZ3ZW  MS
01032300 G6YYN                              OZ3ZW  MS
01040024 G1OIB      IO82                    OZ3ZW  MS
01040934 G7EIO                              OZ3ZW  MS
01111700 GB3LER/B                        B  SM7AED AU
01161500 GB3LER/B                        B  SM7AED AU
02051735 GB3LER/B 52A          50.064    B  G0DJA  AU
02051735 GB3RMK/B 51A          50.060    B  G0DJA  AU
02051742 G3BJD  52A            50.108    C  G0DJA  AU
02061639 G0TYA  55A            50.116    C  G0DJA  AU
02081614 GB3LER/B 41A          50.064    B  G0DJA  AU
02081715 GB3NGI/B 41A          50.062    B  G0DJA  AU
02081715 GB3RMK/B 41A          50.060    B  G0DJA  AU
```

Estonia:

```
02052342 ES1CW  55A            50.110    C  G0DJA  AU
02060008 ES0SIX/B 51A          50.037    B  G0DJA  AU
```

Finland:

```
01111700 OH1SIX/B                        B  SM7AED AU
02052146 OH1SIX/B 599 &2405    50.026    B  G0DJA  AU
02060009 OH9SIX/B 51A          50.067    B  G0DJA  AU
```

France:

```
01031327 F1SAH      IN88                    OZ3ZW  MS
01031327+F5BYM                              OZ3ZW  MS
01031437 F1YJ       JN17                    OZ3ZW  MS
01031450 F1YJ        JN17                   SM7AED MS
01032211 F5BUU, F1BHB                       OZ3ZW  MS
01040941 F1DVO                              OZ3ZW  MS
```

Germany:

```
01031613 DF4IE                              PB0ALN MS
01301645 DL3RBH 599  JN68                C  G4UPS
02061500 DL1OY  55A            50.120    C  G0DJA  AU
02061636 DK7ZB  55A            50.116    C  G0DJA  AU
02061815 DK2PH  55A            50.102    C  G0DJA  AU
```

Ireland:

```
01031319 EI8HZ                              OZ3ZW  MS
01031450 EI8HZ                              PB0ALN MS
```

Italy:

```
01032248 I3LDS                              OZ3ZW  MS
01301703 IN3EEN 59   JN56ws              S  G4UPS
01301721 IK2GSO 59   JN45np              S  G4UPS
```

Isle of Jersey:

```
01030940 GJ4ICD                             SM7AED MS
01031102 GJ4ICD                             OZ3ZW  MS
```

Isle of Mann:

```
01031033 GD3AHV 559            50.110    C  G0DJA  MS
01031215 GD3AHV 579  IO74                C  G4UPS
02051755 GD3AHV 53A            50.105    C  G0DJA  AU
```

Jan Mayen: SM7AED reports hearing from Per-Einar, LA7DFA, telling him that he may be QRV from Jan Mayen from June to April 1995. He will bring the FT767 up there, but has no PA or antenna for 50 MHz. (On 144 MHz he plans to use 2x15 el + kW.)

Netherlands:

```
01031547 PB0ALN                             SM7AED MS
01032254 PA3FYM                             OZ3ZW  MS
02061450 PA2VST 52A            50.108    C  G0DJA  AU
```

Northern Ireland:

```
02061708 GI4XFS 41A            50.116    C  G0DJA  AU
```

Norway:

```
01031230 LA7DFA      JP33                   SM7AED MS
02051744 LA8XP  51A            50.108    C  G0DJA  AU
02061713 LA3UU  53A            50.116    C  G0DJA  AU
```

Poland:

```
01031954 SP4CHY 59   KO03gs 1646km     S  G4UPS
01032334 SP5CCC, SP4CHY                     PA0    MS
```

Russian Federation (European):

```
01032253 RA3YO                              DL     MS
```

Scotland:

```
01031341 GM4ILS                             OZ3ZW  MS
01031459 GM4ISM                             PB0ALN MS
01031636 GM4ISM 57   IO85ar              S  G4UPS MS
02060035 GM4ILS 55A            50.110    C  G0DJA  AU
02061511 GM4RGV 55A            50.116    C  G0DJA  AU
```

Serbia:

```
01032236 YU1ABA, YU7AS                      OZ3ZW  MS
01040035 YU1EU, YU1ABA, YU1CV               OZ3ZW  MS
01040114 YU7AS, YU7FU                       OZ3ZW  MS
01301640 YU1EU  59   KO04dw              S  G4UPS
01301647 YU1AD  579  KO04                C  G4UPS
```

Slovenia:

```
01031618 S59AM                              PB0ALN MS
01301615 S55ZRS/B 599  (-1740)           B  G4UPS
01301624 S59A   59   JN76ep              S  G4UPS
01301627 S57AC  59   JN76tn              S  G4UPS
01301636 S51GW  599  JN76tq              C  G4UPS
01301642 S53ZW  59   JN86bj              S  G4UPS
01301656 S56A   579  JN76gb              C  G4UPS
```

Spain:

```
01031439 EH1DDU                             PB0ALN MS
```

Sweden:

```
01031228 SM7CMV 59   JO75am 1261km     S  G4UPS
01031229 SM7CMV                             PB0ALN MS
01031347 SM7AED 599            50.110    C  G0DJA  MS
01031451 SM7AED 59   JO65ni 1200km     S  G4UPS
01031507 SM7FJE 59           1199km     S  G4UPS
01031544 SM6CMU 57   JO57xk 1228km     S  G4UPS
01230835 SM3EQY 59   JP81fi (-0900)    S  G4UPS Es
02052114 SM3JGG 32A            50.108    C  G0DJA  AU
02060010 SM3EQY 52A            50.115    S  G0DJA  AU
02061508 SM7AED 55A            50.116    C  G0DJA  AU
02061630 SM6FJE 55A            50.112    C  G0DJA  AU
02061808 SM6EHY 55A            50.131    C  G0DJA  AU
```

Ukraine: UU8JJ has an FT690 and will be on 6m this summer from various portable locations in the Crimea. Tnx G1FYC via SM7AED.

Wales:

```
01011040 GW3LDH                50.110    C  G0DJA  TROP
01030949 GW0GEI                             OZ3ZW  MS
01031423 GW3JSV, GW3ZTH, GW6VZW             OZ3ZW  MS
01172113 GW0TSW 539            50.110    C  G0DJA  TROP?
```

News of North America

Mexico:

```
02180250 XE2UZL/B  (-0345)               B  K6QXY
```

Jan., Feb. 1994 DX Reports

The following reports of 50 MHz DX heard and worked are primarily courtesy of G4UPS, SM7AED, ZL4AAA, ZL2TPY, ZL1MQ, VK3OT, and P29CW. Other reports this month have come from K6QXY and perhaps others that I have forgotten. In the tabular listings which follow, the year (1994) is understood, unless the month is 11 or 12, in which case the year is 1993, the day of the month precedes the time, and both are in UTC. A + to the right of the time indicates the observation was one of several in a time period and is probably later than stated. The call at the right is that of the observing (and usually reporting) station. Symbols V = Video Carrier, F = FM audio, B = beacon, C = CW, S = SSB.

News of Africa

Ascension Is. G4UPS passes along the following information from Mike, ZD8M (G3UOF). He has been operational on 6m using a TS690S into a 3-el Yagi from Two Boats village at the foot of Green Mountain in the center of this small 5-mi by 7-mi island. Mike went out of his way to point out that the ZD8VHF beacon on 50.032.5 MHz is still pounding away--and is regularly serviced to keep it in good working order. He has so far worked KP4EOR, YV4AD; several PT/PY stations and CT3FQ, and has been hearing EH7AH 59+ but did not manage a QSO. When G4UPS was at ZD8TC, he had many times mentioned **ducting** in his log in relation to many of the regular paths on 6m to PY/LU and KP--and Mike also mentioned that he believed these regular paths to be ducting at particular times!! Mike request QSL via his home QTH: Mr. Mike Wadsworth, 5, Frobisher Mews, Churchdown, Glos. GL3 1NQ or via the bureau to his home callsign G3UOF.

News of Asia

Asia, General

```
01070615 ASIA-TV  (-0822)   49.750 V ZL4AAA
01070712 ASIA-NBFM COMM.    50.043  F ZL4AAA
01100714 ASIA-NBFM COMM.  50.075   F ZL4AAA
01100714 ASIA-TV S7 (-0810) 49.750 V ZL4AAA
01230838 ASIAN-TV hdg 285 48.249   V ZL4AAA
02051038+ASIAN TV  (-1330)  49.750 V P29CW TEP
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Brunei: V85PB writes on February 13: Thanks for all your efforts in keeping the Bulletin going. Unfortunately I have nothing to report on 6m as it has been very quiet at this QTH for the past month. All I can ever hear are the various television carriers. Peter Bacon, Telecom SES/21, Brunei Shell, Seria 7082, Brunei.

Cyprus: G4UPS reports a phone call from Dave Court, G3SDL (presently living in Denmark and QRV as OZ3SDL) who indicates that he will be active as 5B4/G3SDL on the 6m band from Cyprus from June 29 to July 12. Dave deliberately chose to have his holidy in western Cyprus, in the Polis area, to give us all the opportunity of working a new grid square, KM65. Dave will, at times, run an automatic keyer on 50.093 MHz. He requests QSL cards either through the bureau or direct to Mr. Dave Court, Ege Bakken 18, DK-3520 Farum, Denmark. See also Denmark for another of his trips.

Japan:

```
01040559 JA7ZMA/B  419  (-0625)     B ZL4AAA
01040559+JA1-4,6,7,0 WKG VK2-5,7     ZL4AAA
01040633 JA6YBR/B  429  (-0710)     B ZL4AAA
01040635 JA2IGY/B  419  (-0650)     B ZL4AAA
01040635 JH2EGJ/B  (-0702) 50.0747 B ZL4AAA
01180402 JA1,2,3,7,9,0 (-0457)       ZL4AAA
01180402+JA2IGY/B                    B ZL4AAA
01180402+JA7ZMA/B                    B ZL4AAA
01180402+JR0Y/B            50.0322 B ZL4AAA
02051038 JA2IGY/B  (-1305)           B P29CW TEP
02051040 JA6YBR/B  (-1130)           B P29CW TEP
02051100 JA6RJK              50.110 C P29CW TEP
02051226 JA7ZMA/B  (-1245)           B P29CW TEP
02051235 JA3JTG              50.110 S P29CW TEP
02051240 JR2HCB (Hiyo)       50.110 S P29CW TEP
02051245 JF2IWW (Naito)      50.110 S P29CW TEP
02051250 JA2DDN (Hiddy)      50.110 S P29CW TEP
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Jordan: The UK Six Meter Group (UKSMG) is pleased to announce the first ever 50 MHz operation from the Hashemite Kingdom of Jordan commencing **May 29, 1994**, until **June 26, 1994**. It is with the kind permission of the Royal Jordanian Amateur Radio Society and the Private Office of His Majesty, that we have been issued the special call **JY7SIX**. The DXpedition team consists of the following operators, GJ4ICD, G0JHC (first to arrive and install the station), followed by G3KOX, DL7AV, G3WOS, G4CCZ and G3SED. The station will be located on the top floor of the Amman Marriott Hotel. The Marriott is situated on Jebel hill, over looking the city center. A Yaesu FT650 (100W) will produce around 1kW ERP, using a 6 element long boom Yagi mounted on the roof, at 150ft above ground lvel, with "over the horizon" take-offs in all directions.

In order to get as many calls as possible in the 6m log, please take note of the following guidelines; 1) If we are running a pile-up and you are in the log, please don't call again. 2) We are not interested in your name, grid square etc. Please limit your exchange to **callsigns** and **reports** only. If we require any additional information from you, we will ask. Our locator will be **KM71wx.** During the UKSMG contest on June 4, we will obviously drop these requests and use the required contest exchange. Listen for our beacon (JY7SIX-50.075 MHz) and check the 28.885 MHz liaisson frequency. All QSLs go via G4CCZ, Paul Simons, "Westwood", Faris Lane, Woodham, Surrey, KT15 3DJ, ENGLAND.

Maylaysia:

```
01070655 9M2-TV S1 (-0731) 48.2399 V ZL4AAA
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Taiwan:

```
01020443 BV2FG               50.110 C JA1VOK
01020505 BV2FG               50.110 C JH1WHS
01020550 BV2FG               50.110 C JA5CMO
01020602 BV2FG               50.110 C JA9BHZ
01020610 BV2HS               50.110 C JA5CMO
02060800 BV2AP      (-0830)         JA5
```

News of Europe

Andorra: From January 1, 1994, C31HK (the only 6m permit holder in Andorra with equipment), can operate from 50.000 to 52.000 MHz. Previously he could only transmit above 50.2 MHz. He can now look forward "to joining the rest of Europe who seem to be crystal controlled on 50.110!" Tnx Neil, G0JHC via SM7AED.

Austria:

```
01301701 OE6OWH 59   JN77          S G4UPS
```

Belgium:

```
01032256 ON4PS, ON7YD                OZ3ZW  MS
```

Croatia:

```
01031617 9A3HZ                       PB0ALN MS
01031704 9A3HZ  59   JN86 beam 350 S G4UPS
01301629 9A3HZ  59   JN86ej        S G4UPS
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Czech Republic:

```
01031554 OK1VQ                     C G3HBR
01040127 OK2SBL                      OZ3ZW  MS
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Denmark: Dave Court, OZ3SDL/P will be operational from JO74, the island of Bornholm during the Bank Holiday July 31-August 6, 1994. QSL route will be either via the bureau or direct to the QTH listed under Cyprus. Dave is also planning to activate the island of Mons in JO64gx during June to coincide with the UK Six Meter Group 6m contest.

```
01031118 OZ3ZW  599  JO54          C G4UPS MS
01031522 OY9JD  44                 S G4UPS
01031529 OZ2LD  59   JO54          S G4UPS
01031532 OZ3ZW  599          50.104 C G0DJA MS
01040935 OZ3ZW  57   JO54          S G4UPS
01230850 OZ6VHF/B 559  (-0859)     B G4UPS
02061504 OZ6AQ  52A          50.116 C G0DJA AU
02061515 OZ3SDL 59A          50.100 C G0DJA AU
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